

Paediatric homoeopathy in general practice: where, when and why?

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Aims

To investigate the extent of homoeopathic prescribing in primary care for childhood diseases and assess GP attitudes towards the use of homoeopathy in children.

Methods

Homoeopathic prescribing in primary care was assessed in 167 865 children aged 0–16 years for the year 1999–2000. Computerized prescribing data were retrieved from 161 representative general practices in Scotland. Medical attitudes towards homoeopathic prescribing to children were also assessed via a questionnaire survey.

Results

During the year 1999–2000 22% (36) of general practices prescribed homoeopathic medicines to 190 (1.1/1000 registered) children. The majority of such prescriptions were issued to children under 1 year of age (8.0/1000 registered children). The most frequently prescribed medicines were for common self-limiting infantile conditions such as colic, cuts and bruises, and teething. A total of 259 completed questionnaires were returned by GPs, giving a response rate of 75%. GPs who frequently prescribed homoeopathic medicines to children (more than 1 per month) were more likely to claim an interest in homoeopathy, have had a formal training and keep up to date in the discipline, and refer on to a homoeopath ($P < 0.001$ for all variables) than those GPs who prescribed less than once a month or never. The majority of GPs who prescribed homoeopathic medicines did so when conventional treatments had apparently failed (76%), while 94% also perceived homoeopathy to be safe. Frequent prescribers reported a more positive attitude towards homoeopathic medicines than those who prescribed less frequently. Non-prescribers reported a lack of proven efficacy and lack of training as the main reasons for not prescribing homoeopathic medicines (55% and 79%, respectively). However non-prescribers from within homoeopathic prescribing practices reported a more favourable attitude in general towards homoeopathy and less resistance towards prescribing in the future than non-prescribers from practices where none of the partners practiced homoeopathy.

Conclusions

In primary care paediatric prescribing of homoeopathic medicines most commonly occurs for self-limiting conditions in infants less than 1 year of age. Although the current level of homoeopathic prescribing is low, the widespread use in the community suggests that at least some knowledge of the main indications for homoeopathy and the preparations used would be of benefit to registered medical practitioners.

Introduction

The numbers of patients using complementary medicines, including homoeopathy, are growing worldwide despite the lack of good quality evidence for efficacy and safety [1]. The use of complementary medicine, however, is not limited to adults but is also common in children (11–18%) [2, 3] with homoeopathy one of the most popular.

This wide and growing use of complementary medicines implies a perceived deficiency in conventional medical treatment, paralleled by increasing patient dissatisfaction with conventional medicine (drug side-effects, perceived lack of holistic care), and the attraction of longer appointment times with complementary therapists. Patients are also more likely to turn to complementary therapy if they suffer from chronic illness or psychological symptoms which maybe difficult to treat using conventional approaches [2, 4, 5].

The increasing public interest in complementary medicine has inevitably led to increased awareness amongst GPs with an estimated 68% reportedly involved in some way in such therapies, with homoeopathy the most commonly practised [6, 7]. Although it is known that parents administer homoeopathic medicines to their children, often without telling their family doctor [2], the frequency of GP homoeopathic prescribing to this vulnerable patient group is unknown.

Despite homoeopathic medicines being available within the UK National Health Service since 1948, their efficacy and safety has not been widely studied, having evaded the review of existing medicines following the 1968 Medicines Act [8]. Currently homoeopathic medicines are licensed through a simplified registration scheme that requires manufacturers to demonstrate the quality and safety (assessed solely on whether the medicine is sufficiently dilute to guarantee safety) of their products but not the efficacy (The Council of the European Communities; Directive 92/73/EEC, 1992). Those studies which are available neither confirm nor totally refute the benefits of homoeopathy [9–11], and although there have been reports of related adverse drug reactions, homoeopathy [12] is generally perceived to be safe [13–15].

The aims of this study were therefore to determine the extent of paediatric homoeopathic prescribing in general practice in Scotland and to investigate prescriber attitudes towards use of homoeopathy in children.

Methods

Computerized data collected by electronic questionnaire [16] from Scottish General Practices were used to assess paediatric prescribing of homoeopathic medicines over

a 1 year period (01/11/99–31/10/00). Prescribing data were recorded by the participating General Practices using GPASS (General Practice Administration System for Scotland) software. Data from 161 General Practices (16.6% of the Scottish population), which represent the age and gender mix of the whole Scottish population were analyzed.

A questionnaire was developed and modified after piloting to determine reasons for or against prescribing homoeopathic medicines to children together with GP attitudes towards the use of homoeopathy in this population. General Practices which had prescribed homoeopathic medicines to children during the study year (prescribing practices) were identified and all partners sent the questionnaire. Identical questionnaires were also sent to all the partners in a random selection of General Practices which had not prescribed homoeopathic medicines to children during the study year (non-prescribing practices). In an attempt to increase response rate each practice was contacted by telephone and informed of the forthcoming questionnaire. If a response had not been returned within 4 weeks a further questionnaire was sent out. The questionnaire consisted of 16 questions with a combination of tick-box responses, ranked 5 point scale questions ranging from strongly agree to strongly disagree, together with free text questions. Both the accompanying letter and questionnaire stressed that an individual's homeopathic prescribing practice or attitudes to such prescribing in children only was under review. Responses were analyzed using SPSS software and χ^2 tests, Kruskal–Wallis tests and Jonckheere–Terpstra tests to determine associations between frequency of prescribing, and experience with and attitudes to homoeopathy.

Results

Extent of GP prescribing of homoeopathic medicines

During the study year 167865 children aged 0–16 years registered with a General Practice were identified. 40.4% (67771) of this paediatric population received at least one prescription for a medicine during the study year. A total of 278 prescriptions for homoeopathic medicines were issued to 190 children with the majority of prescriptions to young children under 1 year of age (prevalence rate of 8.0/1000 registered children and 1.1% of all children given a prescription in that age group (Table 1).

A total of 36 different homoeopathic remedies were prescribed with 10 medicines (Table 2) accounting for 78.1% of all prescriptions. The most commonly prescribed medicines were *Citrullus colocynthis*, *Matri-caria recutita* and *Pulsatilla pratensis* (accounting for

Table 1

Extent of paediatric homoeopathic prescribing by age

Age band (years)	Number of children	Number of prescriptions	1999–2000	
			Rate/1000 registered children	% patients*
<1	65	103	8.0	1.1
1–4	42	63	1.1	0.3
5–11	43	69	0.6	0.2
12–16	40	43	0.8	0.2
Total	190	278	1.1	0.3

*% of patients receiving any prescription during the year.

Table 2

Top 10 most commonly prescribed homoeopathic medicines to children

Homoeopathic remedy	Common usage (Inferred)	1999–2000	
		Number of prescriptions	% total
<i>Citrullus colocynthis</i>	Colic	56	20.1
<i>Matricaria recutita</i>	Colic/Earache/Irritability	44	15.8
<i>Pulsatilla pratensis</i>	Colic/Teething/Earache/Cough/Vomiting/Diarrhoea	26	9.4
Graphites	Cradle Cap/Constipation	20	7.2
Sulphur	Nappy Rash/Cradle Cap/Constipation/Diarrhoea	18	6.5
<i>Arnica montana</i>	Bruises/Shock	16	5.8
<i>Calendula officinalis</i>	Cuts/Bruises/Burns	12	4.3
<i>Rhus toxicodendron</i>	Flu symptoms/Cradle cap/Chickenpox rash	10	3.6
<i>Causticum hahnemanni</i>	Burns	8	2.9
<i>Magnesia phosphorica</i>	Colic	7	2.5
Total		217	78.1

45.3%), all indicated for common childhood complaints such as colic and teething.

Of the 161 practices studied, 36 (22%) had prescribed homoeopathic medicine to children during the study year, with 8 practices (5%) accounting for the majority ($n = 197$, 71%) of all homoeopathic prescriptions.

Attitudes towards prescribing homoeopathic medicines to children

A total of 355 questionnaires were sent to individual GPs in Scotland, with 238 to practices previously identified as having partners that prescribe homoeopathic medicines to children and 117 to GPs in a random selection of non-prescribing Practices. 259 (72.9%) completed and 7 (2.0%) uncompleted questionnaires were returned giving a response rate of 74.9%.

When returns were analyzed according to frequency of paediatric homoeopathic prescribing 5% (22) of GPs

were categorized as frequent prescribers (more than once a month), 13.1% (34) occasional (less than once a month), 17% (44) as rare prescribers (less than once in 6 months) and 61% (157) as non-prescribers. The non-prescribers were further subdivided into those who worked within a prescribing practice ($n = 79$, 30.5%) and those from non-prescribing practices ($n = 78$, 30.1%).

73.7% (191) of GPs who responded to the questionnaire had been in General Practice for more than 10 years. However, the length of time in practice was not associated with the frequency of homoeopathic prescribing (χ^2 test, $P = 0.580$).

An interest in homoeopathy, specific homoeopathic training together with regular updating of current homoeopathic practice were most commonly reported by frequent prescribers (96, 91 and 77%, respectively) and least commonly by non-prescribers (5, 5, and 1%, respectively) (Table 3). The association between these

three variables and prescribing frequency was significant (χ^2 test, $P < 0.001$ for all variables). The proportion of GPs who had referred a child to a qualified homoeopath was also significantly associated with frequency of prescribing (χ^2 test, $P < 0.001$) ranging from 91% of frequent prescribers to 30% of non-prescribers (Table 3).

The most common conditions for which homoeopathic medicines were prescribed were colic (85%), cuts and bruises (52%), teething (49%), dermatological conditions (32%), earache (21%), influenza and upper respiratory tract infections (16%), cough (16%), vomiting (16%), irritability (15%) and diarrhoea (12%). Other less commonly reported conditions included croup, headache, enuresis, chickenpox, asthma, depression, anxiety and attention-deficit-hyperactivity disorder (ADHD). The number of conditions for which a GP prescribed homoeopathic medicines was significantly

associated with the overall frequency of prescribing (Kruskal–Wallis test, $P < 0.001$), ranging from an average of 2–3 conditions for rare and occasional prescribers to 8 for frequent prescribers.

Factors influencing paediatric homoeopathic prescribing are shown in Table 4. The perceived efficacy of homoeopathic medicines was significantly associated with prescribing frequency (Jonckheere–Terpstra test $P = 0.002$) varying from 39 to 77% between rare and frequent prescribers, respectively. The perception that homoeopathic medicines have few side-effects was reported by the majority of respondents (94%) although the level of agreement significantly increased with the frequency of homoeopathic prescribing (Jonckheere–Terpstra test, $P = 0.029$). The possibility of benefit due to a placebo effect was also significantly associated with prescribing frequency (Jonckheere–Terpstra test, $P = 0.046$) with 46% of rare prescribers

Table 3

Number (%) of GPs with an interest, or training in homoeopathy, who keep up to date, and have previously referred to a homoeopath

	Frequency of prescribing homoeopathy to children				Total	Significance†
	Frequent	Occasional	Rare	Never*		
Interest in homoeopathy	21 (96)	16 (47)	4 (9)	7 (5)	48 (19)	$P < 0.001$
Received formal training	20 (91)	18 (53)	9 (20)	8 (5)	55 (21)	$P < 0.001$
Keep up to date	17 (77)	4 (12)	2 (5)	2 (1)	25 (10)	$P < 0.001$
Referred to a homoeopath	20 (91)	20 (59)	29 (66)	46 (30)	115 (45)	$P < 0.001$

*The two never groups were combined for these questions as there were no differences in response between them. †Statistical significance between frequency of prescribing for each variable.

Table 4

Reasons for prescribing homoeopathic medicines to children, number (%) of GPs

	Frequency of prescribing homoeopathic medicines						Significance*
	Frequent		Occasional		Rare		
	++	+	++	+	++	+	
Efficacy	4 (18)	13 (59)	3 (9)	17 (50)	2 (5)	15 (34)	<i>P</i> = 0.002
Few side-effects	16 (73)	5 (23)	21 (62)	10 (29)	18 (41)	24 (55)	<i>P</i> = 0.029
Placebo effect	1 (5)	6 (27)	1 (3)	11 (32)	2 (5)	18 (41)	<i>P</i> = 0.046
Parental pressure	3 (14)	7 (32)	2 (6)	15 (44)	5 (11)	19 (43)	NS
Colleague pressure	1 (5)	1 (5)	1 (3)	4 (12)	0 (0)	4 (9)	NS
Failure of conventional medicine	6 (27)	14 (64)	9 (27)	15 (44)	4 (9)	25 (57)	<i>P</i> = 0.031

++ Strongly agree, + Agree. *Statistical significance between frequency of prescribing for each variable; NS not significant.

being more influenced by the potential for a placebo effect than those who prescribed frequently (32%). Pressure from parents or colleagues to prescribe homoeopathic medicines was not associated with overall prescribing frequency. The use of homoeopathic medicines as an alternative when conventional medicine failed was identified as useful by 76% of prescribing GPs and was positively associated with frequency of prescribing (Jonckheere-Terpstra test, $P = 0.031$). Other factors reported to influence prescribing practice included colleague experience (0, 9 and 27% of frequent, occasional and rare prescribers, respectively) and personal experience (27, 6 and 6% of frequent, occasional and rare prescribers, respectively). However, due to the small numbers involved a significant association with frequency of prescribing was not observed.

Within the nonprescribing group (63% of respondents) the reasons reported for not prescribing homoeopathic medicines to children differed significantly between those from prescribing and non-prescribing practices (Table 5). Acknowledgement of a lack of proven efficacy, proven safety, and training differed significantly between these two subgroups and varied from

46 to 64% (Jonckheere-Terpstra test, $P = 0.01$), 18–36% (Jonckheere-Terpstra test, $P = 0.001$), and 87–71%, respectively. Pressure from colleagues or parents to only prescribe conventional medicines did not appear to influence decision making in this group (12–14% and 5–11%, respectively).

Therapeutic safety was reported as the major advantage of paediatric homoeopathic prescribing by all GPs (77% of prescribing and 43% of non-prescribing GPs) (Table 6).

The main disadvantages to homoeopathic paediatric prescribing were reported as lack of training, lack of efficacy, difficulty in using and prolonged consultation times (Table 7). Lack of training and lack of efficacy were most commonly reported by GPs who had never or rarely prescribed (23–31% and 28–35%, respectively). Other reported disadvantages were the potential for developing parental over-dependence on the GP together with the potential for an increase in consultations for minor self limiting conditions.

The majority (63%) of GPs who prescribed homoeopathic medicines to children had been prescribing homoeopathy for more than 5 years with 30% (29) for more than 1 year and 7% (7) for less than 1 year. Of the

Table 5

Reasons for not prescribing homoeopathic medicines to children, number (%) of GPs

	Frequency of prescribing homoeopathic medicines				
	Never		Control		
	++	+	++	+	Significance*
Lack of proven efficacy	17 (22)	19 (24)	24 (31)	26 (33)	$P = 0.010$
Lack of proven safety	6 (8)	8 (10)	13 (17)	15 (19)	$P = 0.001$
Lack of training	46 (58)	23 (29)	44 (56)	12 (15)	NS
Parental pressure	1 (1)	10 (13)	3 (4)	6 (8)	NS
Colleague pressure	0 (0)	4 (5)	2 (3)	6 (8)	NS
Never considered	10 (13)	19 (24)	19 (24)	17 (22)	NS

++ Strongly agree, + Agree.*Statistical significant between frequency of prescribing for each variable; NS not significant.

Table 6

Perceived advantages of prescribing
homoeopathic medicines to children,
number (%) of GPs

	Frequency of prescribing homoeopathic medicines				
	Frequent	Occasional	Rare	Never	Control
Safety	17 (77)	22 (76)	27 (77)	29 (49)	21 (36)
Efficacy	9 (41)	8 (28)	5 (14)	2 (3)	1 (2)
None	0 (0)	0 (0)	0 (0)	7 (12)	16 (27)
Unsure	0 (0)	0 (0)	0 (0)	15 (25)	9 (15)

Table 7

Reported disadvantages of prescribing homoeopathic medicines to children, number (%) of GPs

	Frequency of prescribing homoeopathic medicines				
	Frequent	Occasional	Rare	Never	Control
Lack of training	1 (5)	3 (12)	8 (25)	19 (31)	15 (23)
Lack of efficacy	3 (14)	3 (12)	9 (28)	20 (33)	23 (35)
Difficult to use	1 (5)	6 (24)	2 (6)	0 (0)	0 (0)
Time	5 (23)	4 (16)	0 (0)	0 (0)	2 (5)
None	4 (18)	5 (20)	2 (6)	2 (3)	3 (5)

GPs who had never prescribed homoeopathic medicines to children, 32% (50) would not consider prescribing in the future, 58% (90) possibly, and 10% (15) would definitely consider prescribing in the future. There was, however, a significant difference in attitudes towards future use between non-prescribing GPs working in prescribing practices and those working in non-prescribing practices, with fewer doctors considering prescribing in the future if none of their partners was a prescriber (χ^2 test, $P = 0.023$).

Discussion

Paediatric homoeopathic prescribing in primary care makes up a small proportion (0.1%) of all paediatric prescriptions, especially when compared with the 11–18% of children who are reportedly given such medicines by parents [2, 3]. The majority of such prescribing occurred in a small number of General Practices with the highest prescribing rates to infants less than 1 year of age (8.0/1000 registered children). The reasons for such high homoeopathic prescribing rates in the youngest age group are unclear. However, this pattern of prescribing reflected the bias of prescriptions towards common complaints in infants (Table 2), most of which are self-limiting and relatively mild, but for which there are either no or a very limited number of licensed conventional medicines. Therefore the use of homoeopathic medicines in such young children may reflect a desire on the part of the GP to prescribe a 'medicine' for the child and possibly allay parental concerns, without having to resort to unlicensed conventional medicines for relatively common and minor ailments. However the design of this section of the study may underestimate the actual prevalence of homoeopathic prescribing in children because the data were based upon computer prescription records. Whilst conventional medicines are routinely available as prescribing options on such computer systems, homoeopathic medicines must be manually entered, or written by hand in which case they were not included in this study.

As expected GPs who frequently prescribed homoeopathic medicines to children expressed an interest in homoeopathy, and were more likely to have received formal training and to keep up to date with current practices. They were also more likely to refer a child to a homoeopath than less frequent or non-prescribers. Frequent prescribers also prescribed for a significantly wider range of conditions including asthma and chickenpox, conditions for which there is the potential for inadequate treatment. However this potential for under-treatment is more likely to be recognized by a registered medical practitioner with access to and knowledge of the full range of conventional medical treatments than a parent or non-medically qualified therapist. Although virtually all GPs considered paediatric homoeopathy to be safe, prescribing GPs together with their non-prescribing colleagues reported an increasingly positive attitude towards its use and efficacy. Indeed for frequent and occasional prescribers safety and efficacy were the main factors influencing use, while the placebo effect was reported as a significant reason for use among rare prescribers.

Non-prescribers from non-prescribing practices reported a significantly stronger negative attitude towards paediatric homoeopathy than non-prescribers from prescribing practices suggesting that the presence of a prescribing partner within a GP practice positively influences the attitudes of their non-prescribing colleagues. This was further confirmed by the significantly lower proportion of non-prescribers in non-prescribing practices who would be willing to consider paediatric homoeopathic prescribing in the future.

Although homoeopathic treatments are probably safe [15], a fact which 94% of GP respondents in this study acknowledged, 28% of homoeopathic prescribers and 68% of non-prescribers, in this study, admitted to concerns about a lack of proven efficacy. At a time when the medical establishment is increasingly concerned about the lack of efficacy, safety, and quality data [17, 18] for conventional medicines prescribed to children,

it might seem reasonable to allay concerns regarding the efficacy of homoeopathic medicines in this vulnerable group by undertaking appropriate studies in paediatric populations.

In conclusion, paediatric homoeopathic prescribing is practised by a small number of active prescribers for minor self-limiting conditions occurring in infants. Our results suggest more experienced GPs in the area of homoeopathy influence the attitudes of their colleagues, thus facilitating future prescribing habits. Although in primary care the level of homoeopathic prescribing is low, the widespread use in the community suggests that at least some knowledge of the main indications for homoeopathy and the preparations used would be of benefit to registered medical practitioners.

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